State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

March 16, 1999

TO: Minerals File

FROM: Tony Gallegos, Reclamation Engineer

RE: Site Inspection, San Rafael Energy Company, Four Corners Mine, M/015/014, Emery County, Utah

Date of Inspection:	January 21, 1999
Time of Inspection:	1315 - ~1350
Conditions:	Cold, windy, partly cloudy
Participants:	Gary Jacobson, San Rafael Energy; Vern Shumway, Chance Shumway, Reclamation Contractors; Dean Nyffeler, Neil Simmons, BLM Price Office; Tony Gallegos, DOGM
Purpose of Inspection:	To examine the reclaimed uranium mine site in consideration of a request for final release

The inspection began at the shaft site located west and immediately adjacent to the County road going through Buckmaster Draw. This is the backfilled shaft with the BLM warning sign posted nearby. The previous Division inspection of 10/9/98 revealed some settling of this shaft backfill. At the time of this inspection it appeared the County Road Department had recently placed additional material in the shaft and compacted it.

The inspection began with a brief discussion of the permitting history of the site prior to San Rafael Energy's operations. The areas actively mined by San Rafael Energy were much smaller than the areas which were mined by Atlas Minerals, who filed the original notice. Atlas performed reclamation of most of the disturbances and received release from the Division prior to some active mining by San Rafael Energy. The BLM's files contain minimal information for this site. It seems this site was probably permitted by Atlas with the Division prior to the BLM's regulations. It wasn't until some time later that the BLM had a file on this site. The two areas which San Rafael Energy had impacted were reclaimed and partially released by the Division as described in a 1989 inspection memo by Holland Shepherd. These partially released areas had not been seeded at the time of Mr. Shepherd's inspection.

We then proceeded to examine the two areas which San Rafael Energy had actively utilized. The first area examined was near the shaft site where we first met. The area would be identified as being near features #8 & #9 on the enlarged portion of the Jessie's Twist quad map with the previous Division inspection memo. The map shows two small buildings in this area which were removed by San Rafael Energy and the area reclaimed. Photographs were taken of this first area to document the current

conditions. There are small windrows visible in this area as remnants of regrading. Vegetation success is fairly good in this area.

A scintillometer was used to take radiation readings at the site for general information. It should be noted that the Division does not have a radiation cleanup/reclamation standard for uranium mine sites and these readings were purely for information purposes. Readings were taken at waist level while walking the site. The instrument had a scale from 1 to 5 and measured micro-roentgens per hour (μR/hr) using a probe with a tissue equivalent screen. The instrument had scale adjustments of X5, X10, X100, or X1000. The scintillometer is from Wm. B. Johnson & Associates, Inc., model GSM-360 - serial number 3361. The probe is model MRSP, serial number 5133. The last calibration of this instrument was performed 2/6/98.

Radiation readings in the first area examined registered between 3-4 on the X10 scale which gives a reading of 30-40 micro-roentgens per hour (μR/hr). One rule of thumb indicating elevated radiation levels is to look for areas which are five times the background. A background measurement at a site over 20 miles away was about 20 μR/hr. A background reading was not taken for this site. Another rule of thumb is to look for areas which exceed 150 milli-roentgen/hr (mR/hr). One mR/hr is equal to 1,000 μR/hr, so a reading of 150 mR/hr is equal to 150,000 μR/hr.

The second area utilized and reclaimed by San Rafael Energy was to the north of this first area. This area included an adit which was backfilled and regraded. This adit would be near feature #7 on the enlarged quad map portion from the previous Division inspection. Photographs were taken of this area to document the condition. The backfilled adit appeared stable and was not readily discernible. Vegetation success was somewhat better at this site compared with the first site, probably due to the topographic features which aided in water collection and retention.

According to Gary Jacobson, these were the only sites San Rafael Energy actively worked. According to Vern Shumway, these are the areas where he performed reclamation, in addition to the Probe and Snow Mine shafts. The Probe and Snow shafts were where Vern had backfilled the shaft, then placed a concrete slab over the backfill, and then piled additional material over the slab.

Given that the previous reclamation work performed by Atlas was released, and the previous reclamation work performed by San Rafael Energy was partially released, BLM and Division staff agreed to proceed with final release procedures for this site.

jb
cc: Gary Jacobson, San Rafael Energy
Dean Nyffeler, BLM Price FO
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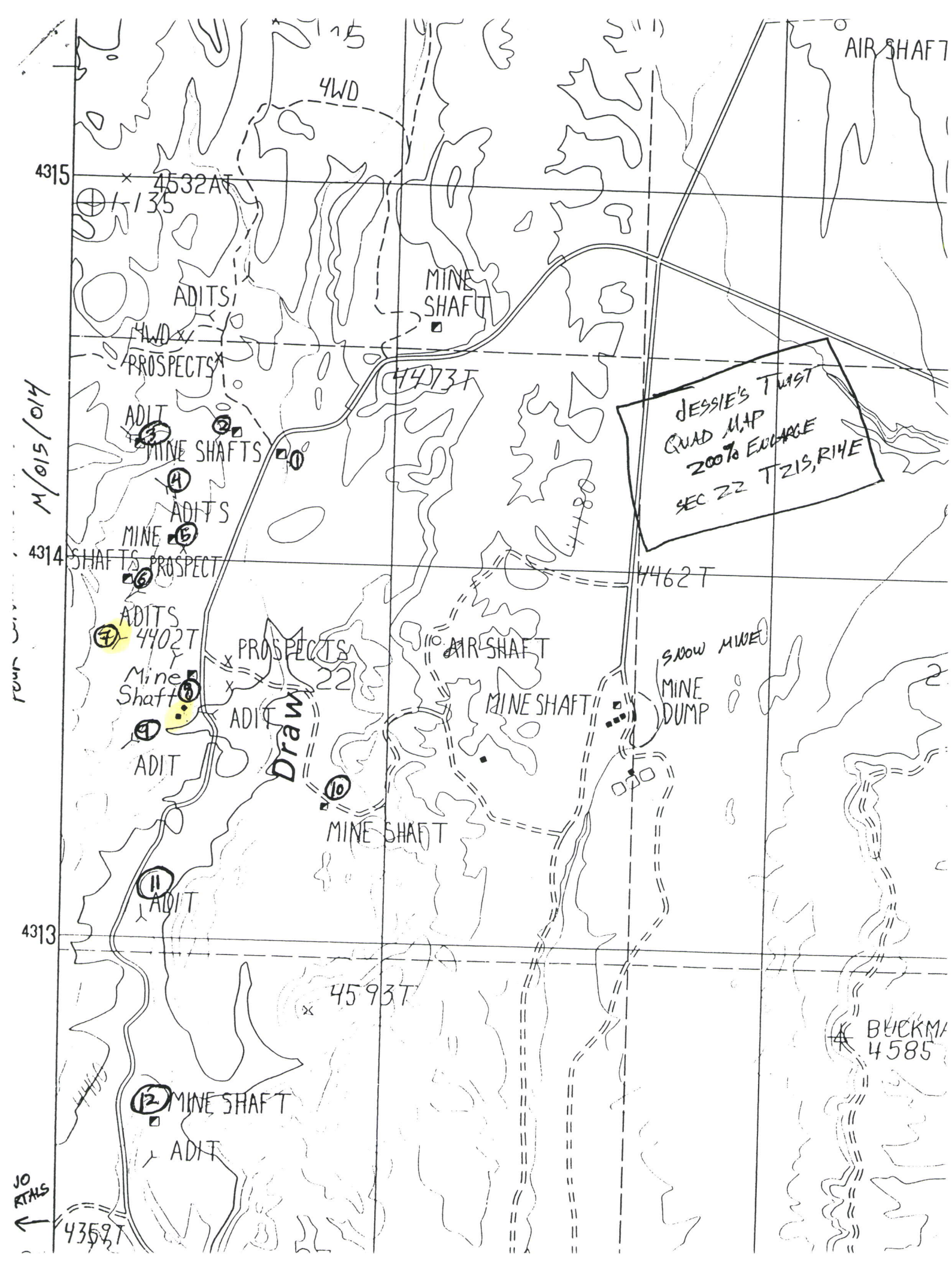
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